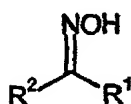




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(71) Applicant (for all designated States except US): AVECIA LIMITED [GB/GB]; Hexagon House, Blackley, Manchester M9 8ZS (GB).			
(72) Inventor; and (75) Inventor/Applicant (for US only): SUGARMAN, Alan, David [GB/GB]; Hexagon House, P.O. Box 42, Blackley, Manchester M9 8ZS (GB).			
(74) Agents: REVELL, Christopher; Avecia Limited, Intellectual Property Group, Hexagon House, P.O. Box 42, Blackley, Manchester M9 8ZS (GB) et al.			

(54) Title: COMPOSITION OF OXIME AND HYDROXY-ESTER FOR THE SOLVENT EXTRACTION OF METALS



(1)



(2)

(57) Abstract

A solvent extraction composition is provided which comprises one or more orthohydroxyaryldoximes or orthohydroxyarylketoxyimes and one or more esters substituted with a hydroxyl group, and preferably a water immiscible organic solvent. The orthohydroxyaryldoximes, or orthohydroxyarylketoxyimes commonly have Formula (1), wherein R¹ is hydrogen or a hydrocarbyl group, and R² is an ortho-hydroxyaryl group; and the esters substituted with a hydroxyl group are of Formula (2), wherein one of R⁷ or R⁸ is a substituted hydrocarbyl group with at least one hydroxyl group and the other is an optionally substituted hydrocarbyl group. Preferred orthohydroxyaryldoximes are 5-(C₉ to C₁₄ alkyl)-2-hydroxybenzaldoximes and preferred orthohydroxyarylketoxyimes are 5-(C₉ to C₁₄ alkyl)-2-hydroxyacetophenone oximes. Preferred esters substituted with a hydroxy group are highly-branched alkyl esters comprising from 5 to 51 carbon atoms, wherein the hydroxy group resides on R⁸. Processes for the extraction of metal values from aqueous acidic and ammoniacal solutions are also provided.